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This index covers all technical items — papers, correspondence, reviews, etc. — that appeared in this periodical during 1993, and items from previous years that were commented upon or corrected in 1993.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

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Arrays; cf. Nonuniformly spaced arrays; Planar arrays

Audible noise; cf. Acoustic noise

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Autocorrelation; cf. Correlation

Automata; cf. Finite automata

Autoregressive moving-average processes
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Backscattering; cf. Radar...; Sonar...

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Bandwidth compression; cf. Data compression

Bayes procedures
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Beamsteering; cf. Adaptive arrays

Bearings (direction-finding); cf. Direction-of-arrival estimation

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Chaos; cf. Limit cycles

Chebyshev filters
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Computation time
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Convolutional coding; cf. Viterbi decoding

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Cosine transforms; cf. Discrete cosine transforms

Covariance analysis
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Covariance matrices; cf. Direction-of-arrival estimation

Crossed arrays; cf. Planar arrays

Cross-entropy minimization; cf. Minimum-entropy methods

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Data acquisition; cf. Measurement-system data handling

Data communication; cf. Equalizers; Measurement-system data handling

Data compression
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Data compression; cf. Image coding; Source coding

DCT; cf. Discrete cosine transforms

Decision-feedback equalizers
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Decision-making; cf. Bayes procedures; Nonlinear detection; Pattern classification; Signal detection

Decoding; cf. Coding/decoding; Viterbi decoding

Deconvolution
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Decorrelation; cf. Correlation

Delay circuits; cf. All-pass circuits; Delay filters

Delay effects
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Delay equalizers; cf. Phase equalizers

Delay estimation
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Delay estimation; cf. Direction-of-arrival estimation

Delay filters
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Delay filters; cf. Linear-phase filters

Delta modulation; cf. Sigma–delta modulation

Demodulation; cf. Modulation/demodulation

Design automation
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Detection; cf. Signal detection

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Differential equations
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Digital communication
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Digital communication; cf. Coding/decoding

Digital filters
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Digital filters; cf. Adaptive filters; FIR digital filters; IIR digital filters; Line enhancers; Median filters; Quadrature mirror filters; Recursive digital filters; Signal sampling/reconstruction

Digital filter stability; cf. Digital filter wordlength effects

Digital filter wordlength effects
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Digital filter wordlength effects; cf. FIR digital filter wordlength effects; IIR digital filter wordlength effects; Multidimensional digital filter wordlength effects; Recursive digital filter wordlength effects

Digital image...; cf. Image...

Digital signal...; cf. Signal...

Digital transmission; cf. Digital communication

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high-SNR asymptotics for MUSIC, minimum-norm, and subspace-rotation methods in sinusoidal frequency estimation. *Tichavsky, Petr*, *T-SP Jul 93* 2448-2460
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uniqueness of two-step-predictor-based spectral estimator that generalizes maximum-entropy concept. *Shim, Theodore I.*, + , *T-SP Sep 93* 2942-2946
Prediction methods; cf. Autoregressive processes; Linear prediction
Probability
comment on 'Inverse invariant distributions' by N. E. Hubing and S. T. Alexander. *Webster, Roger J.*, *T-SP Apr 93* 1727-1728 (Original paper, Jun 90 1059-1061)
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Probability; cf. Exponential distributions
Pulse-compression methods; cf. Chirp modulation

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Quadrature mirror filters
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generalized parametric design technique for perfect-reconstruction QMFs based on Bernstein polynomial approximation; results for AR(1) signal sources. *Caglar, Hakan*, + , *T-SP Jul 93* 2314-2321
multiresolution signal decomposition using FIR QMFs equivalent to th se derived by discrete orthonormal wavelet transform approach. *Akansu, Ali N.*, + , *T-SP Jan 93* 13-19
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nonlinear addressing of mapped data in affine maps of iterated function system using 1-D fractal model for data. *Vines, Greg*, + , *T-SP Apr 93* 1721-1724
speaker identification based on a matrix quantization method; results for continuous utterance of Mandarin digits. *Chen, Ming-Shih*, + , *T-SP Jan 93* 398-403
Quantization; cf. Multidimensional digital filter wordlength effects; Signal sampling/reconstruction; Vector quantization

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Radar; cf. HF radar
Radar clutter; cf. Sea surface electromagnetic scattering
Radar detection
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Radar position measurement; cf. Delay estimation
Radar signal design
design of optimum radar or sonar signals for simultaneous estimation of time delay and Doppler shift. *Wong, Kon Max*, + , *T-SP Jun 93* 2141-2154
Radar velocity measurement
design of optimum radar or sonar signals for simultaneous estimation of time delay and Doppler shift. *Wong, Kon Max*, + , *T-SP Jun 93* 2141-2154
Radio interference; cf. Electromagnetic interference, radiated
Radix conversion
fast radix-3/9 DHT. *Lun, Daniel Pak-Kong*, + , *T-SP Jul 93* 2494-2499
fast radix-3 and radix-6 DCT algorithms; mixed-radix algorithm. *Chan, Yuk-Hee*, + , *T-SP Nov 93* 3157-3161
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serial–parallel FFT array processor; radix-2 processing chip. *You, Jaehee*, + , *T-SP Mar 93* 1472-1476
vector split-radix algorithm for 2-D DHT. *Wu, Ja-Ling*, + , *T-SP Feb 93* 960-965
Random...; cf. Probability; Stochastic...
Random signals; cf. Statistics
Random variables
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Ranging; cf. Acoustic position measurement; Delay estimation; Sonar position measurement
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joint-distribution image model and its information-theoretic properties. *Zhang, Ya-Qin, + , T-SP Jan 93* 508-510
Rational functions; cf. Transfer functions
Realization theory; cf. Finite wordlength effects; Minimal realizations
Recurrent coding; cf. Convolutional coding
Recursive digital filters
phase equalization of 1-D and 2-D recursive digital filters; stability criterion. *Tehrani, Fleur T., + , T-SP Nov 93* 3193-3196
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Recursive digital filter stability; cf. Recursive digital filter wordlength effects
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Redundancy
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Relaxation methods
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Residue arithmetic
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Riccati equations, algebraic
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RI (radio interference); cf. Electromagnetic interference, radiated
Robustness
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Roots; cf. Poles and zeros; Polynomials
Roundoff errors; cf. Finite wordlength effects; IIR digital filter wordlength effecs

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Sampled-data filters; cf. Digital filters; Discrete-time filters
Sampling circuits; cf. Signal sampling/reconstruction
Sampling methods; cf. Signal sampling/reconstruction
Scheduling
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Sea ice
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Search methods
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Sensitivity; cf. Robustness
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Sequences; cf. Multidimensional sequences
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Sonar measurements; cf. Sonar velocity measurement

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Z

Zero-crossing problems; cf. Level-crossing problems
Zeros; cf. Poles and zeros; Polynomials